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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,889	09/04/2003	Richard A. Schmidt	5662-1-PUS-1-1	7191

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EXAMINER	
AFREMOVA, VERA	
ART UNIT	**PAPER NUMBER**
1657	
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09/13/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/655,889	SCHMIDT, RICHARD A.	
	Examiner	Art Unit	
	Vera Afremova	1657	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 June 2007*.

2a)☐ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-11,13 and 15-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 3-11, 13 and 15-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *4/10/07; 8/23/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/19/2003 has been entered.

Claims 1, 3-11, 13 and 15-21 (7/31/2006) are pending and under examination.

Claim Rejections - 35 USC § 112

Indefinite

Claims 1, 3-11, 13 and 15-21 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claimed invention is uncertain, confusing, unclear and indefinite with regard to its scope. Claims 1 and 10 recite "a patient with prostate cancer" under treatment with a botulinum toxin and, thus, the claimed invention is drawn to treating of prostate cancer. On the other hand, claims 1 and 10 recite "alleviating a symptom" and, thus, the claimed method is irrelevant to treatment of prostate cancer because symptom is not a cause of a disease including cancer.

Furthermore, claims 3, 4, 10, 13, 20 and 21 recite various symptoms that would not necessarily point out to "a patient with prostate cancer" and the claimed symptoms are also manifestations of different diseases that are distinct from prostate cancer. The state of the art

indicates that prostate cancer does not cause symptoms until later in the disease when cure is less likely, for example: see the IDS reference by Crawford at page 3/6 par. 5.

Thus, the claimed invention is failing to particularly point out and distinctly claim what for "a therapeutic amount of a botulinum toxin" is intended in the presently claimed method. Therefore, the claimed invention is indefinite for being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

Enablement

Claims 1, 3-11, 13 and 15-21 remain rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention as explained in the prior office action and repeated herein.

The factors to be considered in determining whether undue experimentation is required are summarized in *In re Wands*, 858 F.2d 731, 737, 8 USPQd 1400, 1404 (Fed. Cir. 1988) (a) the breadth of the claims; (b) the nature of the invention; (c) the state of the prior art; (d) the level of one of ordinary skill; (e) the level of predictability in the art; (f) the amount of direction provided by the inventor; (g) the existence of working examples; and (h) the quantity of experimentation needed to make or use the invention based on the content of the disclosure. While all of these factors are considered, a sufficient number are discussed below so as to create a *prima facie* case.

The nature of the invention relates to method for treating various neuronally-mediated urologic disorders with botulinum toxin (specification page 1, lines 13-15).

The breadth of the claims is directed to prostate cancer treatment by administration of botulinum toxin to a patient with prostate cancer for alleviating symptoms of prostate cancer. Some claims are further drawn to administration of various types of botulinum toxin.

As related to prostate cancer treatment it is known that prostate cancer is treated with surgery, radiation and/or hormone therapy (IDS reference by E. D. Crawford, page 4 of 6). The claimed therapeutic agent botulinum toxin acts as blocker of acetylcholine release from nerve endings and, accordingly, it blocks neural transmission when injected. (IDS reference by Leippold et al. [European Urology. 2003, 44:165-174] at page 166, col. 1, par. 3). Thus, treatment or cure of prostate cancer with botulinum toxin is at the very least unpredictable because prostate cancer is not a neurological disorder. Further, the instant specification does not provide examples of treating prostate cancer or curing prostate cancer as disclosed. Therefore, neither specification nor the prior art can be said to support the enablement of the claims over their breath. Undue experimentation would be required to practice the invention as claimed due to the amount of experimentation necessary because of the limited amount of guidance and limited number of working examples in the specification, the nature of the invention, the state of the art, breadth of the claims and the unpredictability of the art.

As related to the scope of claims drawn to administration of botulinum toxin to a patient with prostate cancer for alleviating symptoms of prostate cancer, the specification of the instant CIP application provides 3 new prophetic examples. In the examples 7-9 (pages 18-19) patients diagnosed with prostate cancer receive injections of botulinum toxin A. However, the actual results of botulinum administration to the patients with prostate cancer are not disclosed. Thus, one of ordinary skill in the art would not have a reasonable expectation of success in using the

claimed invention because botulinum toxin primary affects neurological dysfunction but not prostate cancer. In the specification there is a single disclosure about one 65 year old patient with "disabling perineal pain following radiation treatment for prostatic cancer" who "experienced dramatic relief of testical pain" after botulinum injection. However, due to the age of patient and the complexity of his condition and treatments, the expectation that the "pelvic pain" would be relieved for any and all prostate cancer patients as claimed would be unreasonable. The state of art teaches that "large controlled trials are absolutely required to establish the role of botulinum-A toxin injections in the fields of urology and neurology on evidence based medicine", for example: see last paragraph of abstract of the reference by Leippold et al. (IDS reference; European Urology. 2003, 44:165-174). Thus, the applicant's singular, narrow working embodiment cannot be said to support the enablement of the claims over their breath. Thus, one of ordinary skill in the art would not have a reasonable expectation of success in using the claimed invention.

Furthermore, with respect to the claims 6-8, 16 and 17 drawn to the use of various types of botulinum toxin, the state of the art clearly teaches that botulinum neurotoxins should not be considered as generic equivalents and different types of botulinum toxin cleave different parts of the protein complex necessary for docketing acetylcholine. For example: see page 166, col. 1, last paragraph and see page 167, col. 1, par. 1 in the reference by Leippold et al. (European Urology. 2003, 44:165-174). The effects and doses of various types of botulinum toxin in the method comprising administration of botulinum toxin to a patient with prostate cancer for alleviating symptoms of prostate cancer are not disclosed in the specification. Thus, one cannot correlate generic therapeutic amounts of botulinum toxin A (specification page 11, lines 16-21)

to therapeutic amounts of botulinum toxin B, C, D, E, F and G as claimed. Therefore, neither specification nor the state of the art can be said to support the enablement of the claims over their breath.

Undue experimentation would be required to practice the invention as claimed due to the amount of experimentation necessary because of the limited amount of guidance and limited number of working examples in the specification, the nature of the invention, the state of the art, breadth of the claims and the unpredictability of the art.

Therefore, the claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Response to Arguments

Applicant's arguments filed 4/18/2006 have been fully considered but they are not persuasive.

With regard to claim rejection under 35 U.S.C. 112, second paragraph, applicant appears to argue (response page 2) that the claimed invention is not about a prostate cancer but about "alleviating symptoms". Yet, claims recite "a patient with prostate cancer" who manifests "symptom(s)". In alternative, all claimed symptoms are symptoms of various and complex different diseases conditions that do not solely result from prostate cancer. Thus, the claimed invention fails to point out what is the scope of invention. Moreover, the state of the art indicates that prostate cancer does not cause symptoms until later in the disease when cure is less likely, for example: see the IDS reference by Crawford at page 3/6 par. 5. Since the claimed invention

recites "a patient with prostate cancer", the presently claimed method has been considered as drawn to treating prostate cancer.

With regard to "a therapeutic amount of a botulinum toxin" applicant argues that the dosage is chosen as needed for inhibiting of neural activity. Yet, neither claims nor as-filed specification establish the link between neural activity and prostate cancer, thus, amounting to the uncertainty of the claims.

With regard to claim rejection under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement applicant's main argument is that the claimed invention is not intended for treatment of prostate cancer but for alleviation of a symptom of a prostate cancer. Yet, the instant claims recite a patient having a prostate cancer and, thus, the scope of the claims is drawn to treatment of prostate cancer. In alternative, claims would not recite a prostate cancer.

Applicant is also relied upon on 3 references as evidence that prostate cancer might be reasonably expected to be treated with a botulinum toxin.

The reference by Michl et al. is directed to other tumors that are not prostate cancer. Thus, the teaching by Michl et al. is clearly not relevant to the presently claimed method that requires administration of a botulinum toxin for treating prostate cancer.

Two references by Guerchini et al. have same/similar disclosure and the are both describe administration of a botulinum toxin to patients with benign prostatic hyperplasia (BPH). BHP is not a prostate cancer. A patient with BHP is not "a patient with prostate cancer". Therefore, prostate cancer is not shown to be treated as evidenced by the cited reference within the meaning of the instant claims. Moreover, the one and only patient with "low grade adenocarcinoma" included in the trial disclosed by Guerchini et al. was not considered for PSA evaluation (see at

result section). Thus, the cited reference appears to acknowledge that prostate cancer would not be treated and/or improved as result of administration of botulinum toxin to a patient with prostate cancer since patient with adenocarcinoma was not expected to demonstrate improvement in PSA level and he was not even included in PSA evaluation.

Therefore, the state of the art can be said to support the enablement of the claims over their breath. The instant claims are properly rejected under 35 U.S.C. 112, first paragraph.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vera Afremova whose telephone number is (571) 272-0914. The examiner can normally be reached from Monday to Friday from 9.30 am to 6.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jon P. Weber, can be reached at (571) 272-0925.

The fax phone number for the TC 1600 where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology center 1600, telephone number is (571) 272-1600.

Vera Afremova

AU 1657

September 10, 2007

VERA AFREMOVA

PRIMARY EXAMINER